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(54) **VIBRATION GYRO DETECTION CIRCUIT**

(57) Abstract:

PURPOSE: To provide a vibration gyro detection circuit which can effectively suppress temperature drift by accurately eliminating null waves regardless of temperature change.

CONSTITUTION: The FB signal outputted from a feedback electrode 3 of a gyro vibration element 1 is fed to a self-excitation vibration circuit 6 and a phase compensation circuit 8. The output signal of the self-excitation vibration circuit 6 is fed to a drive electrode 2. The phase compensation circuit 8 is provided with a temperature-sensing element 8a and the FB signal is phase-shifted by the amount of phase shift where parasitic waves (null waves) are phase-shifted due to temperature change. The phase-shifted FB signal is fed to a synchronization detection circuit 9. The synchronization detection circuit 9 is outputted from sub-directional vibration detection electrodes 4 and 5 and synchronizing and detecting the detection signal which is amplified by a differential amplification circuit 10, thus compensating the null waves which are the main cause of drift and the phase deviation in reference to a synchronization detection signal and eliminating the null waves from the detection signal.

The detection signal whose null waves are eliminated is fed to a smoothing amplification circuit 11.

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